PRINTER RUSH
(PTO ASSISTANCE)

Application : 10/684,260 **Examiner :** Tra **GAU :** 2873

From: MR **Location:** [✓ IDO] FMF FDC **Date:** 10-19-05

Tracking #: EPM 10684260 Week Date: 07-04-05

DOC CODE	DOC DATE	MISCELLANEOUS
☐ 1449		☐ Continuing Data
☐ IDS		☐ Foreign Priority
☐ CLM		☐ Document Legibility
☐ IIFW		☐ Fees
☐ SRFW		☐ Other
☐ DRW		
☐ OATH		
☐ 312		
☑ SPEC	10-10-03	

[RUSH] **MESSAGE:** Brief description of drawings in specification pg. 2 lists 4A + 5A twice and no 4B & 5B. (Figures)

Please make corrections in specification.

Thank you,
MR

[XRUSH] **RESPONSE:**

INITIALS:

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

[006] Figure 2B shows a Side View of the system of Figure 2A where the optical beams from the BDP are vertically displaced.

[007] Figure 3A shows a top view of a filtering system wherein the optical beams from a beam displacement prism (BDP) are horizontally displaced.

[008] Figure 3B shows a Side View of the system of Figure 3A where the optical beams from the BDP are vertically displaced.

[009] Figure 4A shows a Top View of Liquid Crystal (LC) Variable Optical Attenuator (VOA) using a total internal reflection prism.

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[0010] Figure 4~~A~~B shows a Side View of a Liquid Crystal (LC) Variable Optical Attenuator (VOA) using a lens and mirror combination.

[0011] Figure 5A shows a Polarization Independent Notch filter.

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[0012] Figure 5~~A~~B shows a Polarization Independent Drop filter.

[0013] Figure 6A shows a Reconfigurable Add-Drop Filter.

[0014] Figure 6B shows a Polarization Independent Band Pass filter.

DETAILED DESCRIPTION OF THE INVENTION

[0015] A module for reducing PDL and PMD may include a self-aligning optical loop using optical components, such as a beam splitter, or beam displacing polarizer, a circulator, a total internal reflection prism (retro-reflective) or a lens-mirror combination, and a half-wave plate (HWP). Accordingly, for a polarization device that may perform non-uniformly for orthogonal polarizations, the overall polarization dependent loss and polarization-mode dispersion of the structure may be reduced or eliminated. Such a module may be used, for instance, in applications in WDM networks, microwave signal processing, and array radar controls wherein optical or electrical signal filtering is required. In another aspect of the invention, the retro-reflective prism or the mirror-lens combination may be replaced with a mirror and a path length compensator (PLC) to provide PLD compensation when the active device has a polarization balanced performance for both beams passing through the active device, such as an AOTF.